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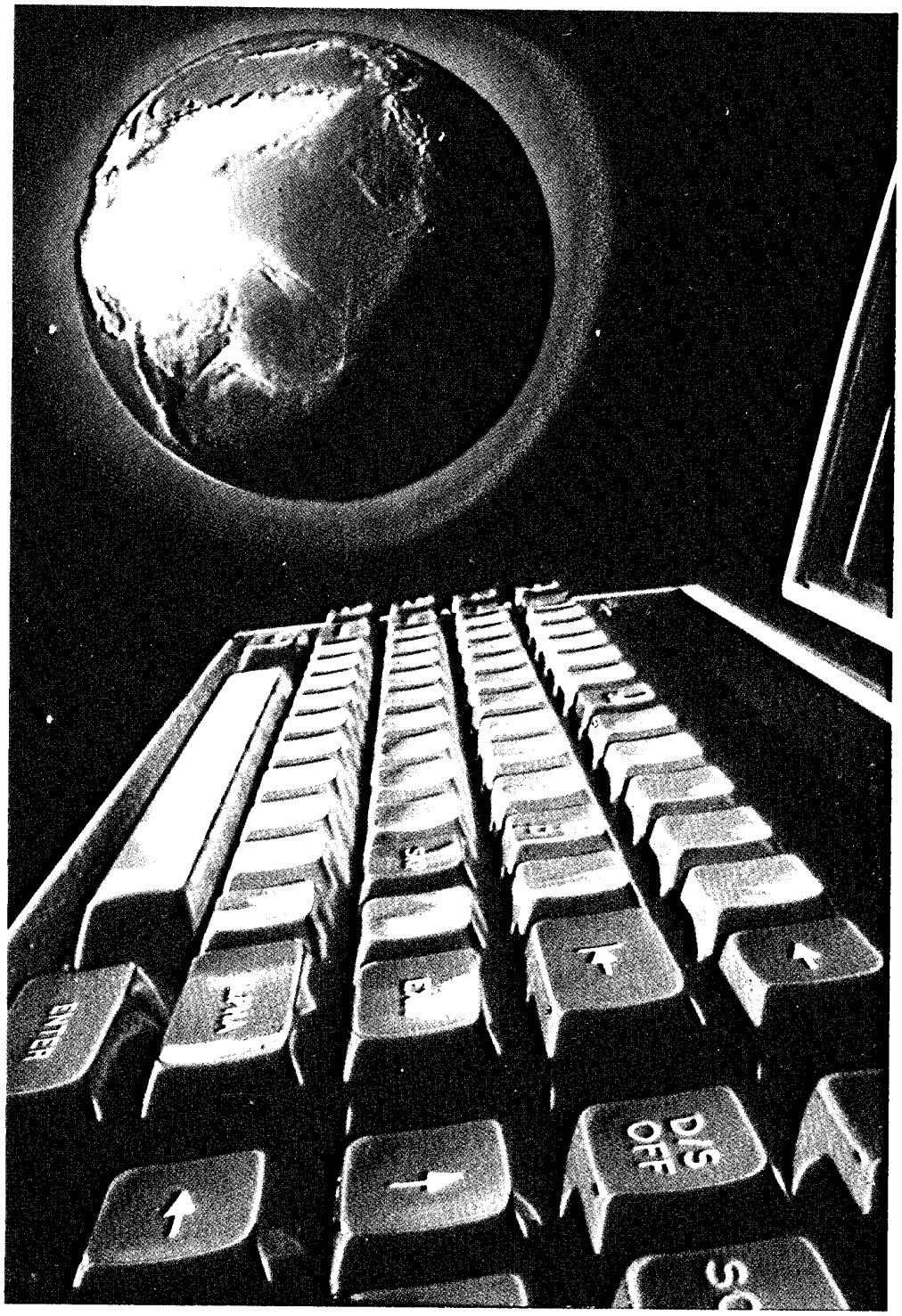

Office of
Information Technology
Annual Report
1986

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Nº 183

Statement of the Director

During the last year, OIT provided a broad range of information technology support to all Agency components and made considerable progress in developing its strategy for the future. Demand for our services continued to increase in virtually all categories, and with strong input from our customers and Senior Agency management we undertook activities that were designed to improve the Agency's overall computer and communications security, increase support for analysis, enhance technical and human collection efforts, and support the Agency's administrative activities. Our major accomplishments included the development of a new consolidated database for the Intelligence Community's counterterrorism effort, several initiatives to provide customers direct access to OIT management on ADP problems, and the replacement of the aging non-secure telephones in Headquarters with a modern system. We also added two mainframe computers to our inventory, completed the process of integrating the domestic communications and data processing functions of OIT and implemented Delivery 2 of SAFE.

The coming year promises to be especially exciting. Major activities will include the installation of a new digital voice and data communications network in both the new and old Headquarters buildings, the Office's mainframe computers will be transferred into the new building, a new workstation to meet the growing needs of our customers will be selected, together with customer representatives and the Office of Communications we will be laying out the long-term architectural direction for information technology in the Agency, and major steps will be taken toward the goal of providing all DI analysts access to the SAFE system.

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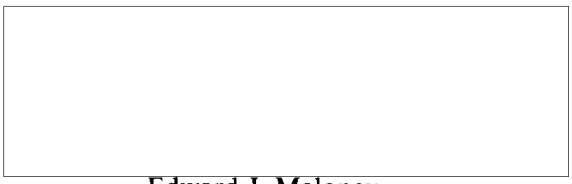

Edward J. Maloney

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PROJECT SAFE: IMPROVED INFORMATION PROCESSING FOR ANALYSIS

The CIA's mission to provide insightful analysis to US policymakers depends largely on the Agency's ability to manage enormous volumes of information efficiently. A major step toward better information handling in support of intelligence analysis was taken last February with the implementation of SAFE Delivery 2. This new release is the foundation of the final SAFE system that will eventually support

25X1 [redacted] DI analysts.

This new release offers major improvements over the earlier version. For example, analysts no longer are restricted to carrying out one task at a time. It is now possible to initiate a file search and then use a single function key to begin reviewing cable traffic while the file search continues. The analyst can just as easily switch into a word processing module, draft a current intelligence article, and send it out to other analysts for coordination. Sections of the incoming cables can be merged into the text of the draft article. At any time during these activities, the analyst can return to the file search module.

Other improvements include a major expansion of the data saved by the system itself. Under the previous system, traffic was retained for only 90 days. With the new release, it is planned that all incoming traffic will be retained for at least several years and possibly longer.

25X1 During the coming year, approximately [redacted] analysts will transfer from the previous version of SAFE to the Delivery 2 release. A similar system will be provided to users in the Defense Intelligence Agency, and a third system will be used by the Di-

25X1 rectorate of Operations. By the end of the decade, there will be as many as [redacted] Intelligence Community officers relying on the SAFE system.

ARTIFICIAL INTELLIGENCE: NEW WAYS TO INCREASE PRODUCTIVITY

OIT personnel are working to apply the techniques of Artificial Intelligence (AI) to a broad range of CIA activities, such as clandestine operations, requirements tasking, personnel management, and data base management. The OIT effort is designed to apply existing AI technology to some of the more complex tasks performed by CIA professionals, thereby improving overall productivity.

The most promising approach in this program is the application of "expert systems," which capture some of the knowledge and expertise of experienced CIA officers. OIT relies on the Office of Research and Development in this effort to ensure that projects benefit from appropriate new information technologies as they emerge from the research environment.

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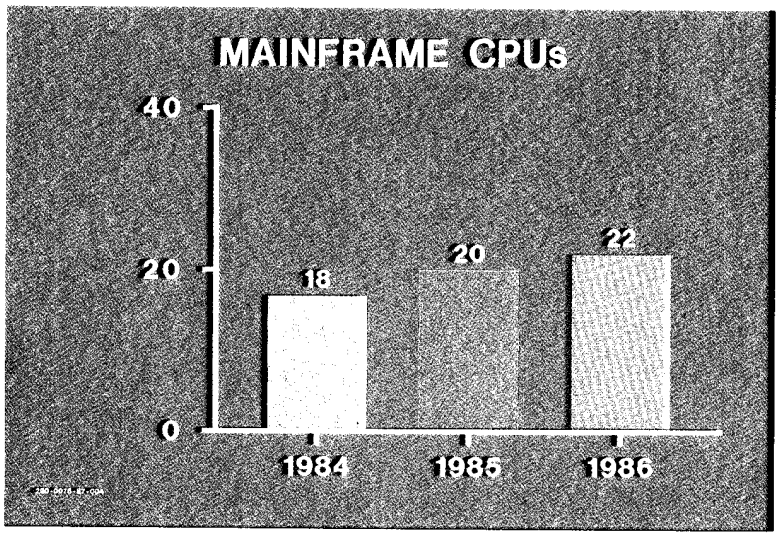
One expert system under development [redacted] is designed to relieve officers in the field from some of the time-consuming but essential support work associated with their mission. The expert systems approach is also being used to help imagery requirements officers cope with the growing complexity of tasking the overhead collection systems. The Tasking Expert Systems (TESS) project was initiated with the knowledge that as future collection systems become operational, enhanced requirements procedures will be necessary to exploit the systems' capabilities while avoiding significant increases in personnel resources.

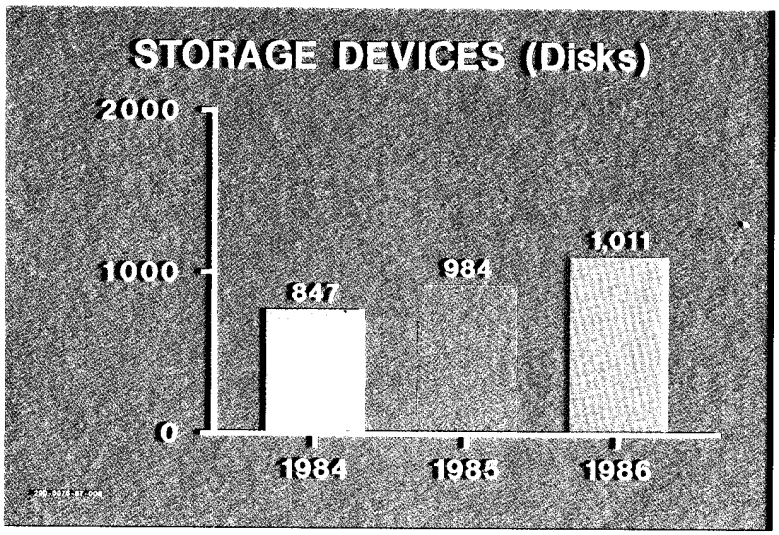
In addition, we joined with the Office of Security and Office of Research and Development to support a contractual effort to develop an expert system to audit the secure uses and potential abuses of our data processing systems.

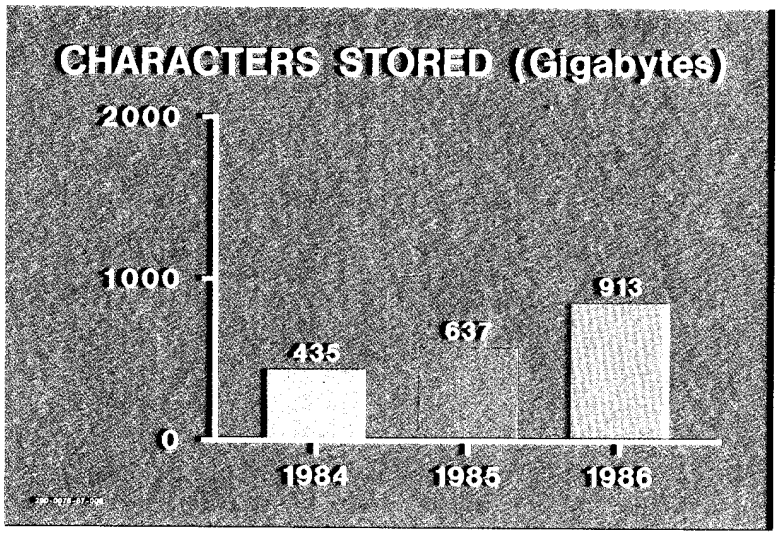
PC SOFTWARE: ONE-STOP SHOPPING

When OIT opened its new PC Software Center on 4 November 1986, CIA employees no longer had to wait days or weeks to obtain the software products they needed to operate their personal computer workstations. The new "PC Store" is stocked with all of the software packages supported by OIT. Agency customers need only bring in an authorized requisition form to obtain copies of popular software packages such as Lotus 1-2-3, Microsoft Word, dBase III PLUS, Kedit, Graphwriter, Freelance, and more than a dozen others.

OIT consultants are on hand at the Center to provide advice to consumers on the appropriate software product for their needs, to assist in the installation and operation of PC programs, and to give guidance on advanced PC applications. Because the Center purchases in volume, customers benefit from both reduced prices and quick delivery of software. The Center also maintains records of software purchases, ensuring that customers are notified of any update information or new releases of the programs they have purchased. In the short time it has been open, the PC Software Center has proven to be a highly successful example of OIT's efforts to improve services to its customers.







Review of 1986

25X1 The employees of the Office of Information Technology can point to a broad range of accomplishments during the past year. We provided important support to CIA collectors, analysts, administrators, and managers as well as to the overall Intelligence Community. Moreover, the Office undertook a number of actions to provide general improvements for all of our customers. For example, we carried out major upgrades
25X1 of the general services, CAMS, SAFE, DESIST, and Directorate of Operations computing environments. In addition, the CIA Headquarters message processing systems were reconfigured, thereby relieving a critically overloaded system and dramatically improving cable delivery time. Two additional mainframe computers (IBM 3090s) were installed, increasing our total inventory to 22 mainframes. Although the number of storage devices increased by only three percent, the number of characters stored surged some 43 percent (from 637 to 913 gigabytes).

The Office undertook several initiatives to improve its responsiveness to user needs during the fiscal year. Chief among these was the establishment of a Customer/Standards Committee to provide OIT customers with a direct link to OIT senior management on ADP issues. The Office Systems Staff was established to provide consulting, development, implementation, and support service for office automation and data processing to customers in the domestic field. The creation of the new consolidated Service Desk provides CIA employees with a single point of contact for reporting problems with their telephones and computer terminals. The PC Software Center gives CIA personal computer users a central location for obtaining PC software and consulting services.

Communications

25X1 As the demand for OIT communications services continued to increase, the Office completed a number of actions to improve communications efficiency. In Headquarters, the outmoded unclassified telephone network was replaced with a modern Private Branch Exchange (PBX). In addition, the Headquarters Secure Telephone System (HSTS) was converted to 24-hour operation, thus eliminating the special procedures needed to use these phones after normal duty hours. The upgrading of the Crisis Communication Center was completed, giving it the capability to provide data, voice, facsimile, and imagery communications support to more than one crisis simultaneously.

Work by contractors was continued on the Message Handling Facility system to bring additional improvements in cable dissemination. This project will result in the replacement of antiquated equipment critical to the distribution of cable traffic in Headquarters. We also completed the development of X.25 communications software on the Agency's data communications network, permitting the operation of significantly more terminals with existing hardware.

Counterintelligence and Security

During 1986, OIT played a major supporting role in the US Government's counterterrorism effort. Major activities included the creation of the Multilateral Counterterrorism Database Systems Program (MCDS). This system made it possible to consolidate the Decision Support and Information System for Terrorism (DESIST) and the CENTIPEDE System. The consolidation will support both the Agency's newly created Counterterrorism Center (CTC) and the broader needs of the Intelligence Community.

The Office also completed the installation of secure and nonsecure voice and data communications and ADP equipment in support of the Counterterrorism Center.

OIT took a number of steps to improve communications security. The Office completed the upgrade of cryptographic equipment from KW-7 to KG-84 at all

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Support for Analysis

The principal development in supporting analysts in the Directorate of Intelligence was the implementation of SAFE Delivery 2 early in the year. The system is available for users 20 hours per day. Delivery 2 also was implemented at the Defense Intelligence Agency. The Automated Information Management System (AIM) was activated in the Northside Computer Center for some DI users. In addition, all DI users were consolidated in the Northside Center, an action that will assist in the full implementation of the SAFE system. The Office also conducted preliminary planning for the introduction of a CRAY scientific computer which will be used by analysts in the Office of Science and Weapons Research for activities such as air-flow analysis on aerospace vehicles and the tracking of space systems.

OIT also designed major enhancements to the document registry system used by the Office of Current Production and Analytic Support. The system, Publication Automated Registry Dissemination System (PARDS), creates, controls, and traces dissemination of Directorate of Intelligence publications such as the National Intelligence Daily, Intelligence Assessments, and Research Papers. The enhancements include features such as automatic verification that potential recipients have the proper clearances to receive a publication; automated verification (using a bar code and light pen) that copies of sensitive publications have been returned; and a capability for tracking the location of individual copies of specific publications.

Support for Administration

Helping to improve the Agency's administrative procedures was an important facet of OIT's activities during the year. The Corporate Data Program was enhanced by the implementation of a new database management system (the Integrated Database Management System/Relational). The action will assist senior managers responsible for tracking CIA's administrative efficiency. In addition, we developed the Central Applicant Processing System (CAPS) to assist the Office of Personnel in monitoring the status of applicants from their initial contact with the Agency to the end of their processing. With the new system, the Office of Personnel no longer is confronted with a restriction on the number of terminals that can access the system. Moreover, CAPS provides the basis for an integrated Personnel, Medical, and Security applicant database.

OIT also completed the development of the Inventory Management and Failure Analysis Reporting System (IMFARS) for the Office of Communications. The new system provides inventory management, status reports on equipment requisitions and repair orders, cost accounting, and statistical reports for Office of Communications management. A major feature is the system's capability to analyze patterns in equipment failures and repair efficiency.

OIT personnel delivered a new payroll database to the Office of Finance this year. Known as the Payroll Automated Inquiry Database System (PAIDS), the new system eliminates a significant amount of manual reference work. Previously, payroll personnel were forced to answer queries by retrieving data stored in hardcopy or microfiche format. The PAIDS system consolidated this information into a computerized database, thereby achieving a major improvement in productivity.

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Support for the Intelligence Community

The Office created the National Systems Group during the year to consolidate OIT support for three Intelligence Community systems, the Multilateral Counterterrorism Database System (MCDS), the Four-C Program, and the COMIREX Automated Management System (CAMS). In addition, a new software release for CAMS successfully delivered thirteen new capabilities including support for the use of a major new collection asset. As described above, the merging of two separate counterterrorism systems into the MCDS will enhance the Intelligence Community's efforts to combat terrorism. In addition, a major software conversion of the MCDS was accomplished featuring the establishment of the first OIT-supported natural language query facility for a production database.

The Office also completed a number of enhancements to the Four-C Program, a highly sensitive database that maintains records of security clearances for all Intelligence Community agencies. The principal improvement was a modification of the system to achieve compliance with Privacy Act regulations.

Office of Information Technology Strategic Objectives

To Develop OIT's most important resource, its personnel:

—To provide employees career enhancing assignments, appropriate training opportunities, and promotions to greater responsibilities, based on merit.

—To provide employees with a set of rich, Agency-wide career opportunties.

—To continue to treat OIT personnel as individuals, with dignity and with fairness.

To Design, Implement, Manage, and Operate the CIA Domestic Information Network:

—To ensure the domestic and foreign networks are designed and operated in the framework of a single integrated Agency information network architecture.

To Continue the Automation of the Collection, Processing, and Analysis Functions of the CIA.

To Ensure the Connectivity of CIA Information Systems.

To Reduce Significantly the Vulnerability of the Agency Network to Security Threats.

To Improve the Responsiveness of OIT Services and Personnel to Customer Needs.

To Improve the Quality of OIT Services, if Necessary Reducing their Number and Scope.